

# Bolin Centre for Climate Research A collaboration between Stockholm University, KTH and SMHI

Week 50, 2020

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The Bolin Centre is a multi-disciplinary consortium of over 400 scientists in Sweden that conducts research and graduate education related to the Earth's climate.





## Peatland carbon stocks are more vulnerable than previously thought

Britta Sannel at the Department of Physical Geography, Stockholm University, is one of the co-authors of a new study that examines the role of peatlands in the global carbon budget over time. The scientists predict that peatlands will shift from being a carbon sink to a source during this century.

Read more on the Bolin website»



Stefano Manzoni receives ERC Consolidator Grant

Stefano Manzoni, Associate Professor in Ecohydrology at the Department of Physical Geography, has been awarded the ERC Consolidator Grant 2020 for a research project about soil processes. The five-year project has a budget of about 1.7 million euros.

Read more on Deparment of Physical Geography's website »

#### **Recent Bolin Centre scientist publications**

On <u>bolin.su.se/publications</u> you'll find a list of scientific journal publications by Bolin Centre scientists. Here are the most recent ones we have published on the website.



- Loisel, J., Gallego-Sala, A.V., Amesbury, M.J., Magnan, G., Anshari, G., Beilman, D., Benavides, J.C., Blewett, J., Camill, P., Charman, D.J., Chawchai, S., Hedgpeth, A., Kleinen, T., Korhola, A., Large, D., Mansilla, C.A., Müller, J., van Bellen, S., West, J.B., Yu, Z., Bubier, J., Garneau, M., Moore, T., Sannel, A.B.K., Page, S., Väliranta, M., Bechtold, M., Brovkin, V., Cole, L.E.S., Chanton, J.P., Christensen, T.R., Davies, M.A., De Vleeschouwer, F., Finkelstein, S.A., Frolking, S., Gałka, M., Gandois, L., Girkin, N., Harris, L.I., Heinemeyer, A., Hoyt, A.M., Jones, M.C., Joos, F., Juutinen, S., Kaiser, K., Lacourse, T., Lamentowicz, M., Larmola, T., Leifeld, J., Lohila, A., Milner, A.M., Minkkinen, K., Moss, P., Naafs, B.D.A., Nichols, J., O'Donnell, J., Payne, R., Philben, M., Piilo S., Quillet, A., Ratnayake, A.S., Roland, T., Sjögersten, S., Sonnentag, O., Swindles, G.T., Swinnen, W., Talbot, J., Treat, C., Valach, A.C., Wu, J., 2020. Expert assessment of future vulnerability of the global peatland carbon sink. Nature Climate Change. doi: 10.1038/s41558-020-00944-0.
- Shojaei, S., Kalantari, Z. & Rodrigo-Comino, J., 2020. Prediction of factors affecting activation of soil erosion by mathematical modeling at pedon scale under laboratory conditions. Scientific Reports: 10, 20163. <u>https://www.nature.com/articles/s41598-020-76926-1</u> 144
- Zhang, Q., and Chen, J., 2020. Enhanced East Asian summer monsoon precipitation due to vegetation feedback during the last interglacial 127ka. Quternary Sciences: 40(6): 1499–1512. <u>http://www.dsjyj.com.cn /EN/10.11928 /i.issn.1001-7410.2020.06.11</u>
- Stengård, E., Räsänen, A., Ferreira, C.S.S., Kalantari, Z., 2020. Inventory and Connectivity Assessment of Wetlands in Northern Landscapes with a Depression-Based DEM Method. Water: 12, 3355. <u>DOI:10.3390/w12123355</u>.
- Christiansen, S., Ickes, L., Bulatovic, I., Leck, C., Murray, B.J., Bertram, A. K., Wagner, R., Gorokhova, E., Salter, M.E., Ekman, A.M.L., and Bilde, M., 2020. Influence of Arctic microlayers and algal cultures on sea spray hygroscopicity and the possible implications for mixed-phase clouds. Journal of Geophysical Research: Atmospheres: 125, e2020JD032808. <u>https://doi.org/10.1029</u> /2020JD032808.
- Ickes, L., Porter, G.C.E., Wagner, R., Adams, M.P., Bierbauer, S., Bertram, A.K., Bilde, M., Christiansen, S., Ekman, A.M.L., Gorokhova, E., Höhler, K., Kiselev, A.A., Leck, C., Möhler, O., Murray, B.J., Schiebel, T., Ullrich, R., and Salter, M.E., 2020. The ice-nucleating activity of Arctic sea surface microlayer samples and marine algal cultures. Atmos. Chem. Phys.: 20, 11089–11117. <u>https://doi.org /10.5194/acp-20-11089-2020</u>.

Please send your newly published publication to bolin@su.se.



#### Towards climate neutrality

In order to manage the mammoth task of reaching climate neutrality, researchers at the Department of Environmental Science along with colleagues from other departments are collaborating within the Stockholm University Environmental Council to produce a roadmap for bringing university emissions down to zero and become climate neutral by 2040.

Read more on Department of Environmental Science's website »

### **BOLIN CENTRE EVENTS**



## Bolin Centre Journalist Breakfast

**Time & venue:** Dec 11 at 08h00-09h00, Zoom Welcome to our second breakfast session with the theme Climate Science in the Media. This session highlights what the general public would like to know about climate issues, and what media and researchers roles are in this, based on a new study from the Swedish Environmental Protection Agency. We will also offer exclusive insights from our latest research. To ensure inclusivity, the breakfast will be conducted in both Swedish and English. Read more and registration on the Bolin website»

### OFFICE STAFF - BOLIN CENTRE AT CAMPUS

Due to COVID-19, the Bolin Centre Office will be irregular staffed at the University. Like many of you, we work from home. Don't hesitate to get in touch with us via mobile or e-mail.

- Magnus: 076-695 70 78, magnus.atterfors@su.se (Communications)
- Annika: 072-148 91 49, <u>annika.granebeck@su.se</u> (Coordination)
- Eva: 076-650 03 08, eva.gylfe@su.se (Supports the office part-time during the autumn).

The **Bolin Centre Weekly News** provides you with a selection of our current activities and latest news and is sent to all members of the Bolin Centre. If you have suggestions that you would like to include or **research that you would like to share** in coming Weekly News, please contact <u>bolin@su.se</u>.

Editor: Magnus Atterfors Foto: Martin Jakobsson, Britta Sannel **Stay updated** Find news and upcoming events at <u>bolin.su.se</u> and follow us on <u>Twitter</u>, <u>Facebook</u> and <u>YouTube</u>.

